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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,275	06/14/2001	Masanori Takano	444.31.01	6829

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EXAMINER

TRAN, MAI T

ART UNIT PAPER NUMBER

2129

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,275

Applicant(s)

TAKANO, MASANORI

Examiner

Mai T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This Office Action is responsive to application 09/881275, filed June 14, 2001 as well as the Request for Continued Examination (RCE) under 37 CFR §1.114, filed June 8, 2005, wherein claims 8 and 10-12 have been canceled and claims 13-15 are newly added. Claims 13-15 remain pending in the application and an action on the merits of claims 13-15 appears below.

PRIORITY

Acknowledgement is made of applicant's claim for foreign priority base on an application 2000-181045 filed in Japan on 6/16/2000.

DRAWINGS

The drawings are objected to because of the minor informalities:

- Figure 2: on the X-axis, the coordinates are jumping from 80 to 1000 and to 120 while applicant described in the specification that the interval of coordinates is 10.
- Figure 9: the rectangular box represents the reference character 272 should be corrected to "Number of enemy characters".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

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be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- in the specification, on page 11, line 15, reference character 281 of Fig. 9 is mentioned but only reference characters 281a, 281b, and 281c are found in Fig. 9.
- In the specification, on page 17, lines 16-18, reference characters E006, E007, E008, 301 are mentioned but not found in Figs 8A, 8B, 8C.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

SPECIFICATION

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required in correcting any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the numerous informalities. The following is a non-exhaustive list of examples:

- On page 4, line 22, "an game apparatus" is incorrect.
- On page 9, lines 22-25, applicant started by describing Fig. 1, but then jumped to reference character 310, then to reference character 180 (both mentioned characters by the way were not in Fig. 1) without explanation where do they belong to i.e. in what figure.
- On page 12, lines 19-20, reference character 263 was described as coordinate data for indicating the position of the enemy character, but on page 14, line 17, applicant described the presence position 263 of the character (which character is this?), and lines 18-19, applicant described the presence position 263 of a player character. Applicant needs to be consistent.
- On page 14, lines 8-13, applicant started by describing Fig. 6B. The next paragraph, lines 14-21, applicant mentioned character 300, but then jumped to enemy character 300a in the search area 301. Reference character 300a is not in Fig. 6B.

Appropriate correction is required.

CLAIM OBJECTIONS

Claim 14 is objected to because of the following informalities: on line 3, applicant recites an arranging process, but on lines 13-14, applicant recites said arrangement process. Applicant needs to be consistent. Appropriate correction is required.

CLAIM REJECTIONS - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13, 14, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- **Claim 13:**

- a) recites the limitation “a predetermined arrangement rule” on page 2, line 7. The claim language is unclear. The disclosure of this limitation can be found on page 20, lines 6-8 and is susceptible to multiple meanings. First, applicant discloses “the rule ... is arbitrary”; next, applicant describes “a rule for attractively expressing the form of a crowd is used”. Is it one rule or is there more than one rule?
- b) recites the limitation "said arrangement process" on page 2, line 12. There is insufficient antecedent basis for this limitation in the claim.
- c) recites the limitation “a movement speed” on page 2, line 14, lines 17-18. The claim language is unclear. The disclosure of this limitation can be found on pages 15, 16, and 25. On page 15, lines 12-13, applicant discloses “the movement speed may be set

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to be, for example, 1.2 times higher than the standard speed.” On page 16, line 3, applicant discloses “the movement speed may be, for example, a standard speed.”

What exactly is a standard speed? On page 25, lines 14-15, applicant discloses

“movement speed = reference speed x 1.2”, lines 24-25, applicant discloses

“movement speed = reference speed x 0.6”. Are standard speed and reference speed the same thing? If yes, applicant needs to be consistent. If no, what exactly is reference speed?

- **Claim 14** recites the limitation “a movement speed” on page 3, line 6, line 9. Same questions rise as set forth above in claim 13 regarding this limitation.
- **Claim 15:**
 - a) recites the limitation “said arrangement process” on page 3, line 21. There is insufficient antecedent basis for this limitation in the claim.
 - b) recites the limitation “a movement speed” on page 3, line 23, line 26. Same questions rise as set forth above in claim 13 regarding this limitation.

CLAIM REJECTIONS - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 14 is rejected under 35 U.S.C. § 101 as being directed to nonstatutory subject matter. The claim is directed to program per se.

A program product not claimed as embodied in computer readable medium is descriptive material per se and are not statutory because it is not capable of causing functional change in the computer.

CLAIM REJECTIONS - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims **13-15** are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al, (U. S. Patent No. 6,280,323), hereafter Yamazaki.

Claim 13

A method of expressing a movement of a crowd made up of a plurality of individuals in an information processing apparatus, said method comprising the steps of:

obtaining the number of individuals which form a crowd at time t and the position of each individual, and assigning a position to each individual in the crowd at the next time t + 1 in accordance with a predetermined arrangement rule (col. 1, lines 45-64, col. 22, lines 37-47);

determining a destination direction with regard to a reference point of the crowd, determined by the positions of the individuals which form the crowd at time t (col.22, line 67, col. 23,lines 1-7. Examiner asserts the team manager being the reference point of the crowd);

determining the position at the next time $t + 1$ according to the position assigned by said arrangement process and said destination direction (col. 23, lines 10-27); and

determining a movement speed from a direction of the assigned position and the destination direction and moving each of the individuals based on the position and the movement speed thus determined (col.22, line 67, col. 23,lines 1-7).

Claim 14 is a program product of the claimed method discussed above, wherein all claimed limitations have been addressed and cited as set forth above.

Claim 15 is an apparatus version of the claimed method discussed above, wherein all claimed limitations have been addressed and cited as set forth above.

CONCLUSION

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Bolnick et al, U. S. Patent No. 5,838,317, discloses a method and apparatus for arranging displayed graphical representations on a computer interface.
2. Bolnick et al, U. S. Patent No. 6,043,817, discloses a method and apparatus for arranging displayed graphical representations on a computer interface.
3. "Flocks, Herds, and Schools: A Distributed Behavioral Model", by Craig W. Reynolds, Computer Graphics, July 1987, pages 25-34).
4. "Dynamical Model of a Pedestrian in a Crowd", by Hosoi, R.; Ishijima, S.; Kojima, A.; Robot and Human Communication, 1996, 5th IEEE International Workshop on 11-14 Nov. 1996, pages: 44 – 49.

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5. "Group Interaction in a Surround Screen Environment", by Hoch, M.; Schwabe, D.; Computer Animation, 1999. Proceedings 26-29, May 1999, pages: 92 – 98.
6. "Using simulation and critical points to define states in continuous search spaces", by Atkin, M. S.; Cohen, P. R., Proceedings of the 2000 Winter Simulation Conference, pages: 464 - 470.
7. "A Simulation of Attempts to Influence Crowd Dynamics", by J. Kirkland; A. Maciejewski, <http://www.engr.colostate.edu/~aam/pdf/conferences/70.pdf>.
8. "Real-time Crowd Movement On Large Scale Terrains", by Wen Tang, Tao Ruan Wan, Sanket Patel, Proceedings of the Theory and Practice of Computer Graphics, 3-5 June, 2003.

CORRESPONDENCE INFORMATION


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mai T. Tran whose telephone number is (571) 272-4238. The examiner can normally be reached on M-F 9:00am-- 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on (571) 272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.T.T
Patent Examiner
Date: 1/31/2006

 2/6/06
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